Katy K. Doctor

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OBJECTIVE

To further the field of aquatic and fisheries ecology by conducting applied and practical research with direct correlation to conservation issues in the Pacific Northwest.

EDUCATION

University of Washington School of Aquatic and Fishery Sciences **Seattle, WA**
Master of Fisheries Science May 2008

- Master's Thesis: Patterns in upriver migration and arrival timing at spawning grounds of sockeye salmon, *Oncorhynchus nerka*, in the Wood River System, Bristol Bay, Alaska

University of California, Santa Cruz **Santa Cruz, CA**
Bachelor of Science, Ecology and Evolutionary Biology June 2003

- Thesis: Assessing the impacts of agriculturally-derived fertilizer runoff on the rocky intertidal habitat
- Highest Honors in Ecology and Evolutionary Biology Major

Highland Park Senior High School **St. Paul, MN**

- High School Diploma, International Baccalaureate Program June 1998

WORK & RESEARCH EXPERIENCE

Research Fisheries Biologist- NOAA, Northwest Fisheries Science Center
Seattle, Washington *September 2009-present*
Supervisor Contact Information: Dr. Barry Berejikian
Email: Barry.Berejikian@noaa.gov

Marine Conservationist and Ecologist
Las Cruces, Chile *February 2009-September 2009*
Supervisor Contact Information: Miriam Fernandez
Email: mfernandez@bio.puc.cl
Conduct research made possible by a research grant by the Fulbright Commission to conduct field-based and emipirical research focusing on the efficacy and success of Chile's Marine Management Areas, an implemented co-management strategy spanning Chile's coastal range. In collaboration with the Departamento de Ecologia at Pontificia Universidad Catolica de Chile and the Estacion Costera de Investigaciones Marinas (ECIM) in Las Cruces, Chile.

Aquatic Ecologist/ Research Assistant- Alaska Salmon Program University of Washington
Bristol Bay, Alaska and Seattle, WA *May 2008– February 2009*
Supervisor Contact Information: Chris Boatright
Phone: 206.543.7628 Email: cboat@u.washington.edu
Empirical and field based research projects including planning and organization of field work in remote research stations in SW Alaska, data collection and compilation, analysis and interpretation of data and write up of results for peer-reviewed scientific journals and Alaska Department of Fish and Game fishery reports. Field work focused on fresh water river and lake system (Wood River lake system in Bristol Bay, AK) and included: salmon stream surveys, spawning surveys, smolt traps/counts, limnology (lake productivity), mark/recapture migration studies and tagging (visual tags and radio telemetry), stream

chemistry analysis, riparian area surveys, gastric levage techniques. Gained experience in boat navigation and motor mechanics in rivers, lakes, bays. Directly involved in planning and carrying out many types of research in different projects and disciplines (fisheries management, freshwater ecology, fish behavior, fish energetics, mark/ recapture, trophic ecology).

Marine Conservation Contractor- The Nature Conservancy
Seattle, WA *September 2008– February 2009*
Supervisor Contact Information: Vera Agostini
Phone: 206.436.6235 Email: vagostini@tnc.org
Conducted an empirically- based research project examining the role and state of marine spatial planning and zoning worldwide. Created presentations, compiled data, wrote reports, and designed web pages for the Nature Conservancy's Global Marine Team to assess their capacity for expansion in marine spatial zoning in the Eastern Caribbean and other regions of the world.

Research Assistant- Marine Resources Assessment Group (MRAG)
Santa Cruz, CA *October 2004- July 2005*
Supervisor contact Information: Marc Mangel
Phone: 831.234.2970 Email: msmangel@soe.ucsc.edu
Empirical research based on projects where scientific consultation is needed relating to marine resources. Tasks include literature searches, database searches, compiling information and data, and writing final reports. Also responsible for start-up of the Santa Cruz chapter office including various administrative tasks (office set-up and organizing).

Research Assistant- Center for Stock Assessment Research (CSTAR)
Santa Cruz, CA *September 2004-July 2005*
Supervisor Contact Information: Marc Mangel
Phone: 831.234.2970 Email: msmangel@soe.ucsc.edu
Creating a library for Professor Mangel (1000+ scientific journal articles) and organizing the CSTAR lecture series on fisheries science and quantitative ecological methods which brings in visiting researchers nationwide. Programs used include endnote, word, excel, adobe PDF.

Research Assistant- Sustainable Fishery Advocates
Santa Cruz, CA *September 2004-July 2005*
Supervisor Contact Information: Teresa Ish
Email: tish@edf.org
Researching and writing reports on sustainable fisheries worldwide and using these reports to implement a labeling system for sustainable seafood in local markets. My work also included training local markets on the issues of sustainable fisheries and the use of our fishwise program in their stores, community education through tabling events, and presenting our program to the public and scientific communities through conferences and workshops.

Investigating the invasive potential of *Megalops atlanticus (Atlantic Tarpon)* on the Pacific Coast of Panama: Preliminary Study
Panama *June-July 2004*
A colleague and I designed and conducted a completely independent project looking at the invasive potential of Atlantic Tarpon along the Pacific coast of Panama since their invasion from the Caribbean via the Panama Canal. We researched the idea, formulated the project, designed field methodology, wrote grant proposals and obtained funding, and conducted field research in Panama including data collection through scientific methods (nets, limnological data, and fishing) and interviews with local fishermen.

Pre College Instructor- Marine Science Consortium
Wallops Island, VA *March-June 2004*
Supervisor Contact Information: Karen Holtan
Phone: 305.731.6037

Teaching middle and high school-age kids about the coastal intertidal, wetland and barrier island ecosystems and scientific methods introduction. Responsible for organization and content of lectures and field trips. Gained familiarity with Atlantic/East Coast species ID and effective communication with scientific knowledge to children ranging in grades 3-12.

Field Intern/ Education Docent- The Golden Gate Raptor Observatory
The Marin Headlands- Fort Cronkhite, CA *July-December 2003.*
Supervisor Contact Information: Allen Fish
Phone: 415.331.0730 Fax: 415.331.7521 Email: afish@parksconservancy.org
Daily activities included hawk watching and hawk banding for data collection efforts of the winter hawk migration over the Marin Headlands. Duties included hawk ID of the 19 migrating species collecting data in an organized, efficient and accurate manner, banding different sized raptors, radio telemetry, coordinating a large and diverse group of volunteers (250+), constructing and operating robotic birds, and public outreach and education.

Research Assistant - The Nature Conservancy
Santa Cruz, CA. *September 2002-June 2003.*
Supervisor Contact Information: Mike Beck
Phone: 831.459.1459 Fax: 831.459.3383 Email: mbeck@tnc.org
Researching novel conservation strategies including submerged land leasing nationally and internationally. Duties included 80% guided independent online research and gathering data on available submerged land and current policies and 20% administrative work using word processing, end note, GIS, and excel programs.

Research/Field Assistant- Wrigley Institute for Environmental Studies
Santa Catalina Island, Channel Islands, CA *June-August 2002*
Supervisor Contact Information: Mia Adreani
Phone: 818.231.6114 Email: madreani@hotmail.com
Assisted two CSU Northridge graduate students in their masters work on rock wrasse and kelp bass spawning behavior. Fieldwork included SCUBA diving (2-3 dives daily), fishing, and boating (experience with whalers). Other responsibilities included lab work (fish dissection and measuring) and data organization/analysis.

Radio Telemetry with CA Sea Otter Study
Santa Cruz/ Monterey, CA *September-November 2001*
Radio tracked California Sea Otters along the Monterey coastline for a study on the population, behavior, and physiology (feeding ecology/success, diving physiology, time management) for a UCSC study. Time shifts were 8 hours in cold, harsh, wet environment.

Universidad de Barcelona Semester Abroad- Academic Programs International
Barcelona, Spain *January-June 2001*
Attended cultural classes at the Universidad de Barcelona taught in spanish and lived with a Spanish family.

Marine Resource Management Semester Abroad- School for Field Studies: BWI Program
South Caicos, British West Indies *September-December 2000*
Program focused on coral reef, mangrove and sea grass ecology with specific emphasis on studying the impacts of fishers on conch and lobster populations. This involved diving on a regular basis while attending classes and conducting an independent research project on the settlement and recruitment patterns of *Panulirus argus* (Caribbean spiny lobster) in the Caicos Bank and other surrounding habitats.

CONFERENCES & SYMPOSIUMS

Doctor, K., Ish, T., and Benoit, S. Sustainable Fishery Advocates: Sustainability and Market-Driven Demand. November 2004. Poster presented at MOTE Fisheries Symposium, Sarasota, Florida.

Doctor, K., Quinn, T. Fishing out evolution? The effects of temporally-biased fishing on sockeye salmon in the Wood River system, Bristol Bay, AK. November 2006. Poster presented at MOTE Fisheries Symposium, Sarasota, Florida.

Doctor, K. Fishing out evolution? The effects of temporally-biased fishing on sockeye salmon in the Wood River system, Bristol Bay, AK. Graduate Student Symposium, School of Aquatic and Fisheries Sciences, University of Washington, Seattle, Washington.

Doctor, K. Fishing out Evolution? Metapopulations and Migratory Patterns in Sockeye Salmon. March 2008. Western Division of American Fisheries Society Meeting. Bellingham, Washington.

Quinn, T., Doctor, K., Kendall, N., Boatright. C., Branch, T. Fishery Selection: Size, age and the timing of migration. February 2009. State of the Salmon Meeting. Vancouver, British Columbia.

Doctor, K. Chile's Coastal Marine Management: The good and the bad. March 2009. Fulbright orientation meeting. Santiago, Chile.

Doctor, K. Chile's Coastal Marine Management Areas: Effects on trophic ecology and fishing effort. Fulbright Enhancement Seminar. Buenos Aires, Argentina.

Doctor, K., B. Berejikian, M. Moore, D. Van Doornik, R. Endicott, E. Tezak, C. Tatara, and J. Atkins. The Hood Canal Steelhead Project: A watershed-scale experiment to assess the demographic, ecological, and genetic impacts of supplementation on natural steelhead populations. Poster presentation at the AFS Washington-British Columbia Chapter 2010 Annual General Meeting in Nanaimo, BC on March 2-4.

TEACHING EXPERIENCE

- Marine Science Instructor, Marine Science Consortium, Wallops Island, VA, March -June 2004
- Teaching Assistant for Intro to Biology (Bio 180) course at University of Washington, Seattle WA. 2006-2007
- Teaching Assistant for Salmon Ecology and Behavior course (FISH 450) at Univeristy of Washington, Seattle WA. Fall 2006 and 2007.

PUBLICATIONS

- Doctor, K.K., Quinn, T.P. 2009. The potential for adaptation-by-time in sockeye salmon (*Oncorhynchus nerka)*: The interactions of body size and in-stream reproductive lifespan with date of arrival and breeding location. Canadian Journal of Zoology, 87:8, p.708-717.
- Quinn, T.P., Doctor, K., Kendall, N., and Rich, H. 2009. Diadromy and the life history of sockeye salmon: Nature, nurture and the hand of man. American Fisheries Science Symposium 69:23-42.
- Doctor, K.K., Hilborn, R., Rowse, M., and Quinn, T.P. 2010. Spatial and Temporal Patterns of Upriver Migration by Sockeye Salmon Populations in the Wood River System, Bristol Bay, Alaska. Transactions of the American Fisheries Society 139: 81-90.
- Doctor, K. K. 2008. Spatial and temporal patterns of homeward migration and population structure in sockeye salmon (*Oncorhynchus nerka*) in the Wood River System, Bristol Bay, Alaska. Master's thesis. University of Washington, Seattle, WA.
- Wiedenmann, J., Doctor, K. A guide to estimating fish production on an artificial reef. 2005. MRAG Americas. A report for the California Coastal Commission.

JOB-RELATED CERTIFICATIONS & SKILLS

- Boat Safety Certification, University of Washington (2005-2009)

- First aid and CPR (1998-present)
- AAUS Scientific Diving Certification (2001-present)
- Proficiency in Windows, EndNote, Adobe Dreamweaver, Microsoft Excel, Word, Powerpoint, Access,
- Proficiency in statistical packages: R programming language, SPSS, Systat, SigmaPlot

RESEARCH AWARDS & GRANTS

- Fulbright Research Scholarship recipient for research in Las Cruces, Chile (2009)
- SAFS Graduate Top Scholar Award/Graduate School's Fund for Excellence and Innovation. Sept 2005- May 2006: $26,889 (tution+salary)
- H. Mason Keeler Endowment for Excellence. June 2006- Sept 2007. $25,874 (tuition+salary)
- John G. Peterson Scholarship. June 2006- May 2007. $9,978
- John N. Cobb Scholarship in Fisheries. Jan 2008- March 2008. $5,637.
- Sustainable Fishery Advocates: Sustainability and Market-Driven Demand. November 2004. Poster presented at MOTE Fisheries Symposium, Sarasota, Florida. Best Poster, MOTE Fisheries Symposium, 2004
- Investigating the invasive potential of *Megalops atlanticus* (Atlantic Tarpon) on the Pacific Coast of Panama: Preliminary Study. PADI Grant, 2004. In collaboration with Smithsonian Tropical Research Institute (STRI).
- Highest Honors in Ecology and Evolution Major, UCSC 2003
- Assessing the Impacts of Agriculturally derived Fertilizer Runoff on the Rocky Intertidal Habitat. Friends of Long Marine Lab Student Research Award, 2003. Senior thesis, UCSC. $1,000.